Table D1. Individual hydrocarbon and total petroleum hydrocarbon concentrations (in μg/g wet wt.) for sediment taken from Old Place marsh, a replanted site.[1-3]

Sample ID	Core Section No[4]	Nonane (n-C_9)	Decane (n-C_{10})	Undecane (n-C_{11})	Dodecane (n-C_{12})	Tridecane (n-C_{13})	Tetradecane (n-C_{14})	Pentadecane (n-C_{15})	Hexadecane (n-C_{16})	Heptadecane (n-C_{17})	Pristane	Octadecane (n-C_{18})	Phytane	Nonadecane (n-C_{19})	Eicosane (n-C_{20})	Heneicosane (n-C_{21})	Docosane (n-C_{22})	Tricosane (n-C_{23})
Station A																		
First Collection Period: Sediment Cores																		
998021001	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021002	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021003	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021004	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021005	5	2.58	nd	nd	nd	nd	nd	nd	nd	1.80	1.60	2.21	1.66	nd	1.91	2.08	nd	nd
Whole Core: Average[5,6]		< MDL	nd	nd	nd	nd	nd	nd	nd	< MDL	< MDL	< MDL	< MDL	nd	< MDL	< MDL	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081101		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Station B																		
First Collection Period: Sediment Cores																		
998021006	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021007	2	nd	nd	nd	nd	nd	3.00	2.73	2.84	5.07	4.86	2.98	4.94	1.64	9.37	1.98	nd	nd
998021008	3	nd	nd	2.19	2.60	3.04	2.18	1.97	3.72	10.8	7.35	2.67	4.29	nd	1.60	1.88	nd	nd
998021009	4	nd	nd	nd	nd	nd	2.26	3.09	2.86	10.2	7.26	2.61	4.19	1.46	11.2	nd	nd	nd
998021010	5	nd	nd	nd	2.19	nd	3.39	3.48	6.07	9.88	6.95	3.35	4.49	2.16	nd	2.29	nd	nd
Whole Core: Average[5,6]		nd	nd	< MDL	< MDL	< MDL	2.36	2.43	3.25	7.35	5.42	2.46	3.71	1.31	4.70	1.52	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	0.92	1.03	1.92	4.35	2.84	1.04	1.74	0.66	5.15	0.74	-	-
Second Collection Period: Sediment Surface Skims																		
897081102		nd	nd	nd	nd	nd	nd	nd	3.03	7.39	10.6	2.34	nd	nd	1.76	nd	nd	nd
MDL		2.57	1.99	2.09	2.03	1.97	1.98	1.73	1.53	1.48	1.35	1.37	1.29	1.30	1.34	1.44	2.52	1.84

Table D1. Continued.[1,2]

Sample ID	Core Section No[4]	Tetracosane (n-C_{24})	Pentacosane (n-C_{25})	Hexacosane (n-C_{26})	Heptacosane (n-C_{27})	Octacosane (n-C_{28})	Nonacosane (n-C_{29})	Triacontane (n-C_{30})	n-Hentriacontane (n-C_{31})	Dotriacontane (n-C_{32})	Tritriacontane (n-C_{33})	Tetratriacontane (n-C_{34})	Pentatriacontane (n-C_{35})	Hexatriacontane (n-C_{36})	Heptatriacontane (n-C_{37})	Octatriacontane (n-C_{38})	Nonatriacontane (n-C_{39})	Tetracontane (n-C_{40})
Station A																		
First Collection Period: Sediment Cores																		
998021001	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021002	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021003	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021004	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021005	5	nd	nd	nd	nd	nd	nd	nd	5.64	2.48	nd	nd	nd	1.23	1.09	1.35	1.34	1.13
Whole Core: Average[5,6]		nd	nd	nd	nd	nd	nd	nd	< MDL	< MDL	nd	nd	nd	< MDL	< MDL	< MDL	< MDL	< MDL
Whole Core: Std. Dev.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081101		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Station B																		
First Collection Period: Sediment Cores																		
998021006	1	nd	nd	nd	nd	nd	nd	nd	4.90	3.27	11.2	nd	nd	0.84	nd	nd	nd	nd
998021007	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021008	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021009	4	nd	nd	nd	nd	nd	nd	nd	3.87	1.69	nd	nd	2.29	nd	nd	nd	nd	nd
998021010	5	nd	nd	nd	nd	nd	nd	nd	2.40	2.02	nd	nd	nd	nd	nd	nd	nd	nd
Whole Core: Average[5,6]		nd	nd	nd	nd	nd	nd	nd	2.64	1.72	< MDL	nd	< MDL	< MDL	nd	nd	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	-	-	1.73	1.02	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081102		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MDL		1.47	1.69	1.39	1.96	1.51	3.13	1.05	2.03	1.60	8.25	0.71	1.25	0.73	0.68	0.61	0.53	0.56

Table D1. Continued.[1,2]

Sample ID	Core Section No[4]	Total Petroleum Hydrocarbons[7]	Total Concentrations of Individual Hydrocarbons[8,9,17]	Total: Pristane + Phytane[8,17]	Pristane/n-C_{17}[18]	Phytane/n-C_{18}[18]	Pristane/Phytane[18]	Total: Odd No Carbons[8,10,17]	Total: Even No Carbons[8,11,17]	Carbon Preference Index (CPI)[12,18]	Sum: C_{10}-C_{12}-C_{14}[8,13,17]	Sum: C_{22}-C_{24}-C_{26}-C_{28}[8,14,17]	Weathering Index (WI)[15,18]
Station A													
First Collection Period: Sediment Cores													
998021001	1	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021002	2	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021003	3	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021004	4	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021005	5	383	nd	3.26	0.89	0.75	0.96	nd	nd	-	nd	nd	-
Whole Core: Average[5,6]		< MDL	nd	< MDL	-	-	-	nd	nd	-	nd	nd	-
Whole Core: Std. Dev.		-	-	-	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims													
897081101		nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
Station B													
First Collection Period: Sediment Cores													
998021006	1	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021007	2	728	61.5	9.79	0.96	1.66	0.98	nd	26.3	-	nd	nd	-
998021008	3	826	64.0	11.6	0.68	1.61	1.71	nd	nd	-	nd	nd	-
998021009	4	834	73.3	11.5	0.71	1.60	1.73	34.0	27.9	1.22	nd	nd	-
998021010	5	1010	68.6	11.4	0.70	1.34	1.55	nd	24.0	-	6.57	nd	-
Whole Core: Average[5,6]		697	59.4	9.13	0.74[19]	1.51[19]	1.46[19]	< MDL	< MDL	-	< MDL	nd	-
Whole Core: Std. Dev.		354	17.3	4.43	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims													
897081102		494	nd	11.2	1.43	-	-	nd	nd	-	nd	nd	-
MDL		181	59.0[16]	2.63[16]				33.9[16]	22.4[16]		5.99[16]	6.89[16]	

Table D1. Continued.[1-3]

Sample ID	Core Section No[4]	Nonane (n-C_9)	Decane (n-C_{10})	Undecane (n-C_{11})	Dodecane (n-C_{12})	Tridecane (n-C_{13})	Tetradecane (n-C_{14})	Pentadecane (n-C_{15})	Hexadecane (n-C_{16})	Heptadecane (n-C_{17})	Pristane	Octadecane (n-C_{18})	Phytane	Nonadecane (n-C_{19})	Eicosane (n-C_{20})	Heneicosane (n-C_{21})	Docosane (n-C_{22})	Tricosane (n-C_{23})
Station C																		
First Collection Period: Sediment Cores																		
998021011	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.51	nd	nd	nd	nd
998021012	2	nd	nd	nd	nd	nd	nd	nd	nd	1.61	nd	nd	nd	nd	nd	nd	nd	nd
998021013	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021014	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021015	5	nd	nd	nd	nd	nd	nd	nd	nd	1.53	nd	nd	nd	nd	nd	nd	nd	nd
Whole Core: Average[5,6]		nd	nd	nd	nd	nd	nd	nd	nd	< MDL	nd	nd	nd	< MDL	nd	nd	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081103		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Station D																		
First Collection Period: Sediment Cores																		
998021016	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021017	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021018	3	nd	nd	2.46	3.46	3.47	3.25	3.21	5.98	11.3	8.21	4.06	5.20	nd	2.54	2.31	nd	nd
998021019	4	nd	nd	12.9	13.8	5.04	10.1	11.4	6.57	15.7	15.8	23.0	30.6	15.2	2.86	3.85	4.27	3.98
998021020	5	nd	nd	6.48	5.78	10.8	13.4	9.05	20.2	38.1	31.0	13.9	19.6	6.08	31.3	3.97	2.70	1.94
Whole Core: Average[5,6]		nd	nd	4.78	5.01	4.26	5.75	5.07	6.86	13.3	11.3	8.47	11.3	4.64	7.61	2.32	< MDL	< MDL
Whole Core: Std. Dev.		-	-	5.05	5.28	4.05	5.69	4.86	7.96	15.4	12.7	9.76	13.3	6.33	13.3	1.60	-	-
Second Collection Period: Sediment Surface Skims																		
897081104		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MDL		2.57	1.99	2.09	2.03	1.97	1.98	1.73	1.53	1.48	1.35	1.37	1.29	1.30	1.34	1.44	2.52	1.84

Table D1. Continued.[1,2]

Sample ID	Core Section No[4]	Tetracosane (n-C_{24})	Pentacosane (n-C_{25})	Hexacosane (n-C_{26})	Heptacosane (n-C_{27})	Octacosane (n-C_{28})	Nonacosane (n-C_{29})	Triacontane (n-C_{30})	n-Hentriacontane (n-C_{31})	Dotriacontane (n-C_{32})	Tritriacontane (n-C_{33})	Tetratriacontane (n-C_{34})	Pentatriacontane (n-C_{35})	Hexatriacontane (n-C_{36})	Heptatriacontane (n-C_{37})	Octatriacontane (n-C_{38})	Nonatriacontane (n-C_{39})	Tetracontane (n-C_{40})
Station C																		
First Collection Period: Sediment Cores																		
998021011	1	nd	nd	nd	nd	nd	nd	nd	6.13	nd	10.3	nd	nd	nd	nd	nd	nd	nd
998021012	2	nd	nd	nd	nd	nd	3.14	nd	5.36	nd	nd	nd	1.26	nd	nd	nd	nd	nd
998021013	3	nd	nd	nd	nd	nd	3.47	nd	6.44	4.80	nd	nd	nd	nd	nd	nd	nd	nd
998021014	4	nd	nd	nd	nd	nd	3.50	nd	5.43	6.33	nd	nd	nd	0.74	nd	nd	nd	nd
998021015	5	nd	nd	nd	nd	nd	nd	nd	4.46	6.35	nd	nd	2.23	nd	nd	nd	nd	nd
Whole Core: Average[5,6]		nd	nd	nd	nd	nd	< MDL	nd	5.56	3.82	< MDL	nd	< MDL	< MDL	nd	nd	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	-	-	0.77	2.82	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081103		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Station D																		
First Collection Period: Sediment Cores																		
998021016	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021017	2	nd	4.11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021018	3	nd	nd	nd	nd	nd	nd	nd	6.33	2.15	nd	nd	nd	nd	nd	nd	nd	nd
998021019	4	nd	nd	nd	nd	nd	nd	3.46	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
998021020	5	nd	nd	nd	nd	nd	nd	nd	6.99	2.78	nd	nd	nd	nd	nd	nd	nd	nd
Whole Core: Average[5,6]		nd	< MDL	nd	nd	nd	nd	1.11	3.27	< MDL	nd	nd	nd	nd	nd	nd	nd	nd
Whole Core: Std. Dev.		-	-	-	-	-	-	1.31	3.10	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims																		
897081104		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MDL		1.47	1.69	1.39	1.96	1.51	3.13	1.05	2.03	1.60	8.25	0.71	1.25	0.73	0.68	0.61	0.53	0.56

Table D1. Continued.[1,2]

Sample ID	Core Section No[4]	Total Petroleum Hydrocarbons[7]	Total Concentrations of Individual Hydrocarbons[8,9,17]	Total: Pristane + Phytane[8,17]	Pristane/n-C_{17}[18]	Phytane/n-C_{18}[18]	Pristane/Phytane[18]	Total: Odd No Carbons[8,10,17]	Total: Even No Carbons[8,11,17]	Carbon Preference Index (CPI)[12,18]	Sum: C_{10}-C_{12}-C_{14}[8,13,17]	Sum: C_{22}-C_{24}-C_{26}-C_{28}[8,14,17]	Weathering Index (WI)[15,18]
Station C													
First Collection Period: Sediment Cores													
998021011	1	203	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021012	2	248	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021013	3	229	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021014	4	193	nd	nd	-	-	-	nd	nd	-	nd	nd	-
998021015	5	nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
Whole Core: Average[5,6]		193	nd	nd	-	-	-	nd	nd	-	nd	nd	-
Whole Core: Std. Dev.		61.0	-	-	-	-	-	-	-	-	-	-	-
Second Collection Period: Sediment Surface Skims													
897081103		nd	nd	nd	-	-	-	nd	nd	-	nd	nd	-
Station D													
First Collection Period: Sediment Cores													
998021016	1	nd	-	nd	-	-	-	nd	nd	-	nd	nd	-
998021017	2	nd	-	nd	-	-	-	nd	nd	-	nd	nd	-
998021018	3	1020	81.8	13.4	0.73	1.28	1.58	40.7	27.7	1.47	7.70	nd	-
998021019	4	3280	195	46.4	1.01	1.33	0.52	79.0	69.3	1.14	24.9	nd	-
998021020	5	2910	239	50.6	0.81	1.41	1.58	93.5	95.2	0.98	20.2	nd	-
Whole Core: Average[5,6]		1480	115	22.6	0.85[19]	1.34[19]	0.99[19]	49.4	42.9	1.15[19]	11.8	nd	-
Whole Core: Std. Dev.		1530	96.9	24.2	-	-	-	35.4	37.6	-	10.2	-	-
Second Collection Period: Sediment Surface Skims													
897081104		nd	-	nd	-	-	-	nd	nd	-	nd	nd	-
MDL		181	59.0[16]	2.63[16]				33.9[16]	22.4[16]		5.99[16]	6.89[16]	

Table D1. Continued.

Footnotes:

[1] The concentrations of the individual aliphatic hydrocarbons and the total petroleum hydrocarbons were determined using external standard calculations.

[2] When an individual aliphatic hydrocarbon was not detected, its concentration was replaced by nd.

[3] The concentrations for n-C_8 will be not reported, since it was difficult to identify this peak in samples and to determine MDL for n-C_8. A value of 0 was used for each nondetected analyte in summation formulae.

[4] For the sediment cores, these numbers represent the depths into each core: 1 - depth 0 to 1 cm; 2 - depth 1 to 2 cm; 3 - depth 2 to 3 cm; 4 - depth 3 to 4 cm; and, 5 - depth 4 to 5 cm. For surface skims, the topmost 1 cm layer is removed from the sediment surface.

[5] The Whole Core Average and Standard Deviation is calculated using the concentrations for each analyte over all core sections.

[6] If all concentrations are nd, the average is replaced with nd. When there is at least one number in the data set to be averaged, each nd is replaced with 1/2*MDL, and an average is calculated. If this numeric value is less than the MDL, the average is replaced by < MDL; otherwise, the average is the calculated value. When a numeric value is found for the average, the standard deviation is then determined using the same number set used to calculate the average.

[7] Determined from the total peak areas in the chromatogram from n-C_8 to n-C_{40} minus any contributions from the internal standard areas.

[8] These formulae use 1/2MDL values for each analyte not detected.

[9] Sum of the concentrations of the individual aliphatic hydrocarbons n-C_9 through n-C_{40} plus the concentrations of pristane and phytane.

[10] The total of the concentrations of the aliphatic hydrocarbons with an odd number of carbon atoms.

[11] The total of the concentrations of the aliphatic hydrocarbons with an even number of carbon atoms. The contribution of n-C_8 is not included in the total.

[12] Carbon Preference Index (CPI) defined as the ratio of the total of the concentrations of the aliphatic hydrocarbons with an odd number of carbons to the total concentration of the alphatic hydrocarbons with an even carbon number.

[13] The total of the concentrations of n-C_{10}, n-C_{12}, and n-C_{14}.

[14] The total of the concentrations of n-C_{22}, n-C_{24}, n-C_{26}, and n-C_{28}.

[15] Weathering Index (WI) is defined as the ratio of the total concentration of n-C_{10}, n-C_{12}, and n-C_{14} to the total concentration of n-C_{22}, n-C_{24}, n-C_{26}, and n-C_{28}.

[16] These MDL values are calculated with the same summation formulae as the samples using the individual hydrocarbon MDL values.

[17] The summation totals for the samples are compared with calculated MDL values obtained using the same summation formulae as the samples. When these sample totals were less than the total MDL, its value was replaced by nd. The averages and standard deviations for the totals were treated in the same way as the individual hydrocarbons; see footnote 6.

[18] Numerical values of the CPI, WI, and the ratios: pristane/n-C_{17}, phytane/n-C_{18}, and pristane/phytane, will be calculated only when the defined quantity for each index or ratio has a numeric value.

[19] These results are not true averages, instead they are the ratios of the averages of the defined quantities, if these averages exist.